

Abstract

The array ferrule of the present invention has a main body having a fiber receiving cavity which extends therethrough from a mating face to a rear end. A pair of pin slots is formed in opposing side walls of the main body being precisely located with respect to the fiber receiving cavity. In communication with each pin slot is a retention member slot for receiving a pin retention member. A plurality of fibers is precisely positioned within the fiber receiving cavity and an encapsulant substantially surrounds the fibers to substantially fill the fiber receiving cavity.

A method of making the array ferrule begins with providing a ferrule blank having a pair of preformed slots extending inward from the opposing side walls. The blank is precisely aligned on a mandrel which is placed within the fiber receiving cavity. Pin slots are broached in each side surface in the area of the preformed slots to form the ferrule main body. The ferrule main body is then positioned within a ferrule receiving opening of a central fixture such that locating pins of the central fixture are positioned within the pin slots. The fiber receiving cavity is then populated with a plurality of optical fibers which are accurately located using a plurality of combs over the ends of the optical fibers which protrude from the mating face. Finally, the fiber receiving cavity is filled with an encapsulant.